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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,313	03/29/2002	Fabrizio Lori	PRE-C218	7292

7590 12/14/2005

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EXAMINER
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MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/089,313

Applicant(s)

LORI ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-23 is/are allowed.
- 6) ☒ Claim(s) 7 and 9-19 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nogiwa et al.(U.S. Patent 4,793,956) in view of Harbard(GB 1,074,317) and Matthews et al.

Nogiwa et al. discloses forming a porous film by extruding a film made of a filler and polyethylene(Abstract) by a method such as an inflation method using a circular die, cooling the film to 30-110C, and stretching the film biaxially.(Col. 7, ll. 8-10, 22-30) In the inflation method, a film is typically formed in a tube with a gas bubble trapped therein, the film being collapsed prior to take-up. Nogiwa et al. does not disclose bonding the two sides of the tube together to form a multi-layer film. Harbard discloses that bonding the two sides of a tube formed via bubble extrusion together to form a film will make it extremely unlikely that pinholes in one side will coincide with pinholes in the other side.(Pg. 1, ll. 59-66) The references do not disclose heating the collapsed to its softening temperature and compressing the layers to bond. Matthews et al. discloses collapsing a film bubble and heating it to bond the layers together.(Col. 5, ll. 51-55; Col. 6, ll. 1-16, 28-33) It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the film after it is flattened in Nogiwa et al., and

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then compress the layers together bonding them since Harbard discloses bonding them together makes it extremely unlikely that pinholes in one side will coincide with pinholes in the other side(Pg. 1, ll. 59-66) and to use the concept of Matthews et al. of heating the film after flattening it, and then compressing it to form the multi-layer film since this insures the film is hot enough to bond the layers together.

Regarding claim 9, Nogiwa et al. discloses the filler can be 150 parts by weight of the resin, which is 60% of the mix.(Table 1)

Regarding claims 10 and 11, Nogiwa et al. discloses the polymer is linear low-density polyethylene. (Abstract)

Regarding claims 12, 14, 16, and 18, Nogiwa et al. discloses the filler preferably has a diameter of less than 5 microns.(Col. 6, ll. 5-6) While the reference does not specifically state the surfaces of the filler are hydrophobic, they are treated with materials which are hydrophobic, such as wax, and therefore would be hydrophobic.(Col. 6, ll. 11-19)

Regarding claims 13, 15, 17, and 19, Nogiwa et al. discloses the filler can be calcium carbonate.(Col. 5, ll. 55-56)

### ***Allowable Subject Matter***

3. Claims 20-23 are allowed.
4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or fairly suggest heating the film to bond the layers together using in series conductive heating means and radiant heating means, then stretching the film after it is cooled. While Van Cappallen discloses conductive and then radiant heating, it occurs during a stretching process, and since the stretching occurs after the bonding in the claims, it would not have been obvious to use the conductive and radiant heating of Van Cappallen prior to the stretching process.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 7-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJM

  
**SAM CHUAN YAO**  
**PRIMARY EXAMINER**